

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 Claim 1 (original): A method for preserving layer 2 address information or information
2 replacing a layer 2 address of a client device which sourced a virtual private network
3 packet, the method comprising:

4 a) determining a new layer 3 destination address based on at least a
5 portion of a layer 3 destination address of the virtual private network
6 packet; and
7 b) encapsulating the virtual private network packet with a layer 3 source
8 address, the new layer 3 destination address determined, a layer 2 source
9 address and a layer 2 destination address.

1 Claim 2 (original): The method of claim 1 wherein the layer 3 source address
2 corresponds to the layer 3 address of an ingress access router.

1 Claim 3 (original): The method of claim 1 wherein the new layer 3 destination address
2 determined corresponds to the layer 3 address of an egress access router.

1 Claim 4 (original): A method for forwarding a virtual private network packet in which
2 layer 2 address information or information replacing a layer 2 address of a device has
3 been preserved, in which layer 3 destination address information has been preserved and
4 which includes a second layer 3 destination address which corresponds to an egress
5 access router, the method comprising:
6 a) de-encapsulating the virtual private network packet by removing the
7 second layer 3 destination address;
8 b) determining a new destination layer 2 address based on (i) at least a
9 portion of the preserved layer 3 destination address information, and (ii) at
10 least a portion of the layer 2 address information or the information
11 replacing the layer 2 address of the device; and

- 12 c) replacing a destination layer 2 address with the new destination layer 2
13 address determined.

Claims 5-15 (canceled)

- 1 Claim 16 (original): An apparatus for routing virtual private network packets, each of the
2 packets including layer 2 address information or information replacing a layer 2 address
3 of a client device which sourced a virtual private network packet, the apparatus
4 comprising:
5 a) a table including a layer 3 destination address of the virtual private network
6 packet and an associated layer 3 address of an egress access router;
7 b) means for determining a new layer 3 destination address based on the contents
8 of the table; and
9 c) means for encapsulating the virtual private network packet with the new layer
10 3 destination address determined.

Claims 17 and 18 (canceled)